

**REMARKS**

Claims 1, 3-5, 8, 10, 11, 15, 17-24, 26 and 28 are now pending in the present application. Claims 1, 3-5, 8, 10, 11, 15, 17-24, 26 and 28 have been amended to recite “cationic electrodeposition” from prior claims 25 and 27. Accordingly, claims 25 and 27 have been cancelled without prejudice or disclaimer. The amendments to the claims do not introduce any new matter.

The rejections of Claims 1, 3-5, 8-11, 15, 17-24, 26 and 28 under 35 USC 103(a) as being unpatentable over WO 02/24344 to Bittner et al.; of Claims 1, 4-5, 11 and 26 rejected under 35 USC 103(a) as being unpatentable over US 2004/0094235 to Rodzewich et al.; and of Claims 3, 8, 10, 15, 17-24 and 28 under 35 USC 103(a) as being unpatentable over US 2004/0094235 A1 to Rodzewich in view of US 2003/0221751A1 to Claffey have been overcome by the above amendments to the claims to recite “cationic electrodeposition” from prior claims 25 and 27. Claims 25 and 27 were not rejected over the above grounds.

Claims 25 and 27 were rejected under 35 USC 103(a) as being unpatentable over WO 02/24344 to Bittner and further in view of US Patent 4,130,431 to Kogure. Claim 25 was rejected under 35 USC 103(a) as being unpatentable over US 2004/0094235 to Rodzewich and further in view of Kogure. Claim 27 was rejected under 35 USC 103(a) as being unpatentable over US 2004/0094235 to Rodzewich in view of US 2003/0221751A1 to Claffey and further in view of Kogure. The cited references fail to render obvious the above claims.

The present invention is a pretreatment method for cationic electrodeposition coating comprising treating a specific substance with the specific chemical conversion coating agent, which can apply good chemical conversion treatment to a substance comprising a plurality of metal materials including iron, aluminum and zinc materials, and can reduce the effects on the environment.

A substance comprising any of the plurality of metals mentioned above is subjected to a treatment by the method of the present invention followed by a cationic electrodeposition coating. This provides for good corrosion resistance and adequate adhesion to a coating film. Treating by the method of the present invention is always followed by cationic electrodeposition coating. Thus, after treating a substance by the method of the present invention, the substance

can be subjected to the next coating step without an intermediate drying step. This is an important benefit or aspect of the present invention that should be kept in mind.

Bittner suggests a method for coating a metal strip that comprises coating the surface with an aqueous dispersion that contains hexafluorozirconic acid, aminopropyltrimethoxysilane or citric acid (See paragraph [0259], Example 67). However, the dispersion suggested by Bittner contains a UV-crosslinkable water-soluble and/or water-dispersible resin and a photoinitiator. After coating with the dispersion, the coated material is subjected to drying and curing by UV radiation to form the anticorrosive coat. (e.g. see claim 1 thereof). Bittner excludes curing thermally and selects curing by UV radiation (see [0013], line 7).

Therefore, Bittner does not intend and does not teach a pretreatment method for cationic electrodeposition, and the method differs from the method of the present invention. Moreover, it is not even apparent from Bittner that the method suggested therein could be used as a pretreatment according to the present invention. On the other hand, as discussed above, in the method of the present invention, after the pretreatment according to the present invention, the treated substance is subjected to a cationic electrodeposition coating without drying.

Kogure does not overcome the above discussed deficiencies of Bittner with respect to rendering the present invention unpatentable. Kogure relates to a rust preventive paint. It is stated in the Office Action that Kogure discloses the rust preventive paint is painted by electrodeposition, so the present invention is obvious from Bittner and Kogure. It is asserted in the Office Action that Kogure teaches the the coating solution can be applied by spraying, dipping or electrodeposition. This statement is not accurate. The description at column 4, lines 12-13 illustrates the method of applying the metal treatment liquid. The “electrodepositing” in Kogure refers to the electrodeposition of the metal treatment liquid (i.e. the chemical conversion coating agent of the present invention). In other words, Kogure merely suggests that the paint is applied by electrodeposition, but fails to disclose or even remotely suggest that the paint is applied for pretreatment for cationic electrodeposition coating. (also see col. 9., lines 29-34). The term “pretreatment method for cationic electrodeposition” as recited in the claims means that the chemical conversion coating agent is to be applied before the step of the electrodeposition

coating. Therefore, Kogure and the present invention differ in the step of the application of the composition.

There is no description about the pretreatment method of cationic electrodeposition coating composition in any of the references relied upon in the office action. This is an important and crucial aspect of the present invention.

Therefore, the present is not obvious from Bittner and Kogure.

Rodzewich suggests a composition containing zirconic fluoroacid and APS. However, the material treated with the composition is painted with a clear coat acrylic powder from PPG (see paragraph [0042], Example 1). Therefore, the composition is not an agent for pretreatment for cationic electrodeposition coating. Moreover, it is not even apparent from Rodzewich that the method suggested therein could be used as a pretreatment according to the present invention.

Kogure does not overcome the above discussed deficiencies of Rodzewich with respect to rendering the present invention unpatentable. The above discussion of Kogure is incorporated herein by reference. Therefore, the present is not obvious from Rodzewich and Kogure.

Claffey does not overcome the above discussed deficiencies of Rodzewich and Kogure with respect to rendering the present invention unpatentable. The aqueous compositions of Claffey are also not agents for pretreatment for cationic electrodeposition coating. In examples thereof, after individual panels of cold rolled steel, electrogalvanized steel and aluminum are coated with the aqueous composition, they are then coated with the PPG powder coating and cured (see paragraphs [0064] and [0065]). Therefore, the suggestions of Claffey differ from the present invention. Accordingly, the present is not obvious from Rodzewich, Kogure and Claffey.

Therefore, the present invention is not obvious from these references.

Concerning obviousness, *Graham V. John Deere*, 383 U.S. 1, 148 U.S.P.Q. 459 (1966) outlines the approach that must be taken when determining whether an invention is obvious. In *Graham*, the Court stated that a patent may not be obtained if the subject matter would have been obvious at the time the invention was made to a person having ordinary skill in the art, but emphasized that nonobviousness must be determined in the light of inquiry, not quality.

Approached in this light, §103 permits, when followed realistically, a more practical test of

patentability. In accordance with Graham, four inquiries must be made in determining whether an invention is obvious:

- (1) The scope and content of the prior art are to be determined.
- (2) The difference between the prior art and the claims at issue are to be ascertained.
- (3) The level of ordinary skill in the pertinent art are resolved.
- (4) Evaluating evidence of secondary considerations, such as commercial success, long felt but unsolved needs and failure of others, etc. Also see *KSR Int'l Co. v. Teleflex, Inc.*, No. 04-1350 (U.S. April 30, 2007).

In conjunction with interpreting 35 U.S.C. §103 under *Graham*, the initial burden is on the Examiner to provide some apparent reason or suggestion of the desirability of doing what the inventor did, i.e. the Examiner must establish a *prima facie* case of obviousness. To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention, or the Examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references. In addition, the prior art reference (or references when combined) must teach or suggest all of the claim limitations.

The discussion in *In re Kotzab*, 55 U.S.P.Q. 2d 1313 (Fed. Cir. 2000) at page 1317 is also relevant wherein the Court stated:

A critical step in analyzing the patentability of claims pursuant to section 103(a) is casting the mind back to the time of invention, to consider the thinking of one of ordinary skill in the art, guided by the prior art references and the then-accepted wisdom in the field. See *Dembiczak*, 175 F.3d at 990, 50 USPQ2d at 1617. Close adherence to this methodology is especially important in cases where the very ease with which the invention can be understood may prompt one "to fall victim to the insidious effect of a hindsight syndrome wherein that which only the invention taught is used against its teacher.<sup>1</sup> Id. (quoting W.L. Gore & Assoc., Inc. v. Garlock, Inc. 721 F.2d 1540, 1553, 220 USPQ 303,313 (Fed. Cir. 1983)).

The cited art fails to provide the degree of predictability of success of achieving the properties attainable by the present invention needed to sustain a rejection under 35 USC 103. See *Diversitech Corp. v. Century Steps, Inc.* 7 USPQ2d 1315 (Fed. Cir. 1988), *In re Mercier*, 185 USPQ 774 (CCPA 1975) and *In re Naylor*, 152 USPQ 106 (CCPA 1966).

Moreover, the properties and results of the subject matter and improvements which are achievable by the claimed subject matter and disclosed in the specification should be considered when evaluating the question of obviousness under 35 USC 103. See *Gillette Co. v. S.C. Johnson & Son, Inc.*, 16 USPQ2d. 1923 (Fed. Cir. 1990), *In re Antonie*, 195, USPQ 6 (CCPA 1977), *In re Estes*, 164 USPQ 519 (CCPA 1970), and *In re Papesch*, 137 USPQ 43 (CCPA 1963).

No property or result should be ignored in determining patentability and comparing the claimed invention to the cited art. Along these lines, see *In re Papesch*, *supra*, *In re Burt et al.*, 148 USPQ 548 (CCPA 1966), *In re Ward*, 141 USPQ 227 (CCPA 1964), and *In re Cescon*, 177 USPQ 264 (CCPA 1973).

It is again noted that references N, O and P cited by the examiner on form PTO-892 sent with the office action of October 17, 2005 incorrectly state the Countries. The correct countries are WIPO, Europe and Europe, respectively. It is **again requested** that a corrected PTO-892 be issued.

In view of the above amendment, applicant believes the pending application is in condition for allowance. In the event the Examiner believes that another interview might serve to advance the prosecution of this application in any way, the undersigned attorney is available at the telephone number noted below.

Please charge any fee due with this response to our Deposit Account No. 22-0185, under Order No. 21581-00314-US from which the undersigned is authorized to draw.

Dated:

Respectfully submitted,

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